

Serial No. 10/649,577
Art Unit: 2822

REMARKS

1. **Present Status of Patent Application**

This is a full response to the outstanding Office Action, mailed July 22, 2005. Reconsideration and allowance of the application and presently pending claims 1-8 and 16-27 are respectfully requested.

2. **Response to Objection of Claim 4 Under 35 U.S.C. §112, Second Paragraph**

Claim 22 has been objected for failing to provide a proper antecedent basis. In response to the objection, claim 22 has been amended to overcome the stated objection. Accordingly, Applicants respectfully request that the objection be withdrawn.

3. **Response to Rejection of Claims 1-6, 16, 18, 20-24, and 26 Under 35 U.S.C. 102(e)**

Claims 1-6, 16, 18, 20-24, and 26 were rejected under 35 U.S.C. §102(e) as allegedly being anticipated by *Glenn* (U.S. Patent No. 6,247,229). For a proper rejection of a claim under 35 U.S.C. Section 102(e), the cited reference must disclose all elements/features/steps of the claim. See, e.g., *E.I. du Pont de Nemours & Co. v. Phillips Petroleum Co.*, 849 F.2d 1430, 7 USPQ2d 1129 (Fed. Cir. 1988).

a. **Claim 1**

As provided in independent claim 1, Applicants claim:

A method for forming a package for an electrical device, said method comprising the steps of:

attaching a removable material to a surface of conductive material before one or more isolated conductive features have been formed within said conductive material;

forming said isolated conductive features within said conductive material;

attaching encapsulant to said isolated conductive features and said removable material, wherein said attaching step is performed before a singulation process is performed to separate said package; and

removing said removable material from said conductive features and said encapsulant, wherein the removing said material step is performed after the singulation process is performed to separate said package.

(Emphasis added).

Serial No. 10/649,577
Art Unit: 2822

Applicants respectfully submit that independent claim 1 is allowable for at least the reason that *Glenn* does not disclose, teach, or suggest "removing said removable material from said conductive features and said encapsulant, wherein the removing said material step is performed after the singulation process is performed to separate said package," as recited and emphasized above in claim 1.

Glenn is apparently limited, at most, to an approach for forming packages for housing an integrated circuit device where step 9 of FIG. 1 clearly shows that individual packages are separated from an encapsulated array after plastic sheet 10 is removed from the encapsulated array in step 7. *See* cols. 5-6, lines 48-7. Therefore, *Glenn* fails to disclose, teach, or suggest "removing said removable material from said conductive features and said encapsulant, wherein the removing said material step is performed after the singulation process is performed to separate said package."

For at least these reasons, the rejection of claim 1 should be withdrawn.

b. Claims 2-6, 16, 20-24, and 26

Dependent claims 2-6, 16, 20-24, and 26 are believed to be allowable for at least the reason that these claims depend from allowable independent claim 1. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988).

c. Claim 18

Claim 18 is canceled without prejudice, waiver, or disclaimer, and therefore, the rejection to this claim is rendered moot. Applicants take this action merely to reduce the number of disputed issues and to facilitate early allowance and issuance of other claims in the present application. Applicants reserve the right to pursue the subject matter of these canceled claims in a continuing application, if Applicants so choose, and do not intend to dedicate any of the canceled subject matter to the public.

4. Response to Rejection of Claims 1, 3-6, and 16 Under 35 U.S.C. 102(e)

Claims 1, 3-6, and 16 were rejected under 35 U.S.C. §102(e) as allegedly being anticipated by *Yamaguchi* (U.S. Patent No. 6,166,430). For a proper rejection of a claim under

Serial No. 10/649,577
Art Unit: 2822

35 U.S.C. Section 102(e), the cited reference must disclose all elements/features/steps of the claim. *See, e.g., E.I. du Pont de Nemours & Co. v. Phillips Petroleum Co.*, 849 F.2d 1430, 7 USPQ2d 1129 (Fed. Cir. 1988).

a. Claim 1

As provided in independent claim 1, Applicants claim:

A method for forming a package for an electrical device, said method comprising the steps of:

attaching a removable material to a surface of conductive material before one or more isolated conductive features have been formed within said conductive material;

forming said isolated conductive features within said conductive material;

attaching encapsulant to said isolated conductive features and said removable material, wherein said attaching step is performed before a singulation process is performed to separate said package; and

removing said removable material from said conductive features and said encapsulant, wherein the removing said material step is performed after the singulation process is performed to separate said package.

(Emphasis added).

Applicants respectfully submit that independent claim 1 is allowable for at least the reason that *Yamaguchi* does not disclose, teach, or suggest "attaching encapsulant to said isolated conductive features and said removable material, wherein said attaching step is performed before a singulation process is performed to separate said package" and "removing said removable material from said conductive features and said encapsulant, wherein the removing said material step is performed after a singulation process is performed to separate said package," as recited in claim 1.

Yamaguchi is apparently limited, at most, to an approach for manufacturing a semiconductor device where a "plastic film 12 . . . is attached to the lower surface of the main lead frame unit" and "[t]hereafter, the pad assembly 16 is mounted on the main lead frame unit 15." "In this processing step, the connection portions 16a of the pad assembly 16 are cut off simultaneously with, or posterior to, the attachment of the die pad 14 to the plastic film 12, thereby separating the die pad 14 from the frame 16b of the pad assembly 16." *See* col. 8, lines 45-67. (Emphasis added). *Yamaguchi* describes these steps occurring before an encapsulation step and a plastic film removal step is performed.

Serial No. 10/649,577
Art Unit: 2822

Further, with regard to the passage of the *Yamaguchi* reference cited in the Office Action, a portion of leads 8 which are not encapsulated during the manufacturing process are removed and this step is done after the singulation process described above. See col. 11, lines 41-65. Therefore, *Yamaguchi* fails to disclose, teach, or suggest "attaching encapsulant to said isolated conductive features and said removable material, wherein said attaching step is performed before a singulation process is performed to separate said package" and "removing said removable material from said conductive features and said encapsulant, wherein the removing said material step is performed after a singulation process is performed to separate said package."

For at least these reasons, the rejection of claim 1 should be withdrawn.

b. Claims 3-6 and 16

Dependent claims 3-6 and 16 are believed to be allowable for at least the reason that these claims depend from allowable independent claim 1. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988).

5. Response to Rejection of Claims Under 35 U.S.C. 103(a)

Claims 7-8 and 17 have been rejected under 35 U.S.C. §103(a) as purportedly being unpatentable over *Glenn* in view of *Wyland* (U.S. Patent No. 6,111,199) in further view of *Weng* (U.S. Patent No. 5,972,234). Claims 25 and 27 have been rejected under 35 U.S.C. §103(a) as purportedly being unpatentable over *Glenn* in view of *Fjelstad* (U.S. Patent No. 6,001,671). Claim 19 has been rejected under 35 U.S.C. §103(a) as purportedly being unpatentable over *Glenn* in view of *Yamaguchi*.

In order for a claim to be properly rejected under 35 U.S.C. §103, the teachings of the cited art reference must suggest all features of the claimed invention to one of ordinary skill in the art. See, e.g., *In re Dow Chemical*, 837 F.2d 469, 5 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1988); *In re Keller*, 642 F.2d 413, 208 U.S.P.Q. 871, 881 (C.C.P.A. 1981).

Applicants submit that *Glenn* does not teach or suggests all of the claimed features of independent claim 1, as previously discussed. Further, Applicants submit that the cited art in the proposed combinations fails to cure the deficiencies of the *Glenn* reference. Thus, claims 7-8, 17, 25, and 27 (which depend from respective independent claim 1) are allowable for at least this reason.

Serial No. 10/649,577

Art Unit: 2822

Please also note that claim 19 is canceled without prejudice, waiver, or disclaimer, and therefore, the rejection to this claim is rendered moot. Applicants take this action merely to reduce the number of disputed issues and to facilitate early allowance and issuance of other claims in the present application. Applicants do not intend to dedicate any of the canceled subject matter to the public.

CONCLUSION

In light of the foregoing amendments and for at least the reasons set forth above, Applicants respectfully submit that all objections and/or rejections have been traversed, rendered moot, and/or accommodated, and that the now pending claims 1-8 and 16-27 are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned agent at (770) 933-9500.

Respectfully submitted,


Charles W. Griggers, Reg. No. 47,283

**THOMAS, KAYDEN,
HORSTEMEYER & RISLEY, L.L.P.**
Suite 1750
100 Galleria Parkway N.W.
Atlanta, Georgia 30339
(770) 933-9500